

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1. – 4. (Canceled).

5. (New) An electrostatic separator for separating particles containing oil out of a gas stream, comprising:

a chamber having a gas stream inlet and being structured and arranged to redirect the gas stream entering the chamber through the gas stream inlet;

an emission electrode arranged to form, relative to a gas stream direction, a front corona region and a rear deposition region;

a deposition electrode; and

an outlet opening structured to receive the separated particles and arranged adjacent the deposition electrode and at a level with or after, relative to the gas flow direction, the rear deposition region.

6. (New) The electrostatic separator in accordance with claim 5, wherein the gas flow direction is from a top of the separator to a bottom of the separator, whereby the front corona region is oriented upwards, and

wherein the chamber is located above the emission electrode.

7. (New) The electrostatic separator in accordance with claim 6, wherein the chamber is structured and arranged to form a cyclone above the emission electrode to redirect the gas stream.

8. (New) The electrostatic separator in accordance with claim 5, wherein the gas flow direction is from a top of the separator to a bottom of the separator, and

wherein walls of the chamber adjoin the deposition electrode so that separated particles collected on the chamber walls flow downward along the deposition electrode to the outlet opening.

9. (New) The electrostatic separator in accordance with claim 5, wherein the gas flow direction is from a bottom of the separator to a top of the separator, whereby the front corona region is oriented downwards, and

wherein the chamber is located above the emission electrode.

10. (New) The electrostatic separator in accordance with claim 9, further comprising a baffle arranged within the chamber to redirect the gas stream outwardly.

11. (New) The electrostatic separator in accordance with claim 5, wherein the gas flow direction is from a bottom of the separator to a top of the separator, and

wherein the outlet opening is arranged between the deposition electrode and walls of the chamber.

12. (New) An electrostatic separator to separate oil from a gas stream, comprising:
a chamber arranged to direct a portion of oil particles in the gas stream against a wall of the chamber;
an emission electrode arranged to form a corona region and a disposition region;
a disposition electrode surrounding the emission electrode to collect charged oil particles;
and
an outlet adjacent the disposition electrode and arranged to receive the portion of oil particles directed against the wall of the chamber and the charged oil particles collected by the disposition electrode.

13. (New) The electrostatic separator in accordance with claim 12, wherein the gas stream flows from a top of the separator to a bottom of the separator, and the chamber is arranged in front of the emission electrode, relative to gas stream flow direction.

14. (New) The electrostatic separator in accordance with claim 12, wherein the chamber is structured to form a cyclone, which directs the portion of oil in the gas stream against the chamber wall.

15. (New) The electrostatic separator in accordance with claim 12, wherein the gas stream flows from a bottom of the separator to a top of the separator, and the chamber is arranged after the emission electrode, relative to gas stream flow direction.

16. (New) The electrostatic separator in accordance with claim 12, wherein the chamber includes a baffle structured and arranged to direct the portion of oil in the gas stream against the chamber wall.

17. (New) A method for separating oil from a gas stream, comprising:
directing a portion of oil particles in the gas stream against a wall of the chamber;
forming a corona region at one end of an emission electrode and forming a disposition region at an opposite end of the emission electrode, in which both the corona region and the disposition region are located spatially below the chamber;
collecting charged oil particles on a deposition electrode surrounding the emission electrode; and
receiving the portion of oil particles directed against the chamber wall and the charged oil particles collected on the disposition electrode in an outlet adjacent the disposition electrode.

18. (New) The method in accordance with claim 17, wherein the gas stream flows from the chamber to the top of the deposition electrode, the corona region is formed downstream from the chamber, relative to a gas stream flow direction, and the outlet for receiving the portion of oil particles is arranged at one of a level with the disposition region and behind the disposition region, relative to the gas stream flow direction.

19. (New) The method in accordance with claim 17, wherein the directing of the portion of oil particles in the gas stream against a wall of the chamber comprises creating a rotational flow path for the gas stream entering the chamber.

20. (New) The method in accordance with claim 17, wherein the gas stream flows from the corona region to the chamber, and the outlet for receiving the portion of oil particles is arranged at one of a level with the deposition region and behind the deposition region, relative to the gas stream flow direction.

21. (New) The method in accordance with claim 20, wherein the directing of the portion of oil particles in the gas stream against a wall of the chamber comprises deflecting the gas stream radially outward.